Safety Review Committee
August 15, 2003
10:00 AM – 12:00 PM

Minutes

Members Present
Joel Ager, Michael Banda, Sharon Doyle, Ben Feinberg (Chair), Ken Fletcher, Richard Kadel, Mack Kennedy, Ed Lampo (Secretary), Steve Lundgren, Augusto Macchiavelli, Othon Monteiro (by Pat Thomas), Linfeng Rao, Weyland Wong, Linda Wuy
Members Absent
Dennis Collins, Peter Lichty, Don Lucas, Linda Smith, Scott Taylor, Hisao Yokota
Others Present
Paul Blodgett, John Chernowski, Georgeanna Perdue, John Seabury, Robin Wendt (by phone)

Previous Minutes

Minutes of the June 20 meeting were distributed and discussed.
Under **OSHA and Log Under-Reporting** add concluding sentence:
The SRC endorses requesting that more suitable standards be used.
The minutes of the June 20, 2003 meeting were accepted as amended.

Status: 2003 MESH Reviews

Advanced Light Source MESH response will be today.

Physics MESH: Joel has yet to receive firm dates from Physics.

Directorate presentation is scheduled for September SRC meeting.

EETD presentation is scheduled for September SRC meeting.

PBD presentation is scheduled for September SRC meeting.

Advanced Light Source MESH

ALS MESH Team member, Augusto Machiavelli thanked ALS for helping and cooperating in the review. He outlined the process of questionnaire, interviews, and inspections. The criteria for the review were explained. Highlighted were the ALS' many Noteworthy Practices and described were the one Observation and one Concern.
Augusto introduced Ben Feinberg, ALS Deputy Director. Ben addressed the MESH report findings (excerpts from his presentation follow).

Overview of ALS

- ALS is unique at the Lab
  - The ALS is a blend of "big science" (the accelerator) and "small science" (one scientist and a post-doc or graduate student)
- ALS is growing rapidly:
  - Harder (higher energy) x-rays
  - More rapid user turnover
  - More users unfamiliar with synchrotron radiation
  - More users per year
- ES&H needs will grow
- Space needs will grow

Users at the ALS
Last year there were more than 1300 "Users" of the ALS. Of these, 68% were from outside LBNL. The scientific disciplines doing experiments at ALS include: Material Science, Physics, Life Science, Chemical Science, Applied Science, Geoscience & Ecology.

ALS ISM Plan integrates environment, safety, and health management into its work processes.

Line Management Takes Full Responsibility for ES&H at ALS
•Line Management can authorize commitment of resources
•Division Director
—Assures all ALS activities are safe and in compliance
•Division Deputy
—Supervises ES&H Coordinator
—Approves hazard reviews
•Deputies, Heads, and Group Leaders
—Approve and implement procedures
—Appoint QUEST Team Leaders
—As a group, allocates major ES&H resources

Roles and Responsibilities
•Supervisors ensure:
—Work is planned considering ES&H risk
—Controls are implemented
—Personnel are appropriately qualified/trained
—Work is performed safely
•All personnel
—Attend required training
—Work safely, stop unsafe work, report hazards
—Participate in ES&H/QA self-assessment teams (QUEST)

Personnel Competence
•Qualifications
—Director/program head selects person who possesses qualifications to perform duties most effectively
•Training
—Supervisor and employee complete job hazards questionnaire; develop training plan
—Reviewed with PRD or P2R

Work Planning with Balanced Priorities
•Group Leaders/Activity Supervisors
—Incorporate appropriate resource allocation for ES&H concerns into all research activities and proposals
•Tailor hazard controls to work activities
—Complete Integrated Functional Analysis (IFA)
—Use PUB-3000 as a resource
—Assisted by Division ES&H Coordinator, EH&S Liaison, and subject matter experts

Working Safely

•All personnel are expected to
—Follow procedures, authorization conditions, and PUB-3000
—Report hazards and stop unsafe work
•Supervisors/group leaders observe work
•ALS division deputy director, ES&H coordinator, and electrical safety engineer perform safety walkthroughs of experiment floor weekly
•All new/revised AHD activities are reviewed and inspected by division ES&H coordinator and division deputy prior to approval of start-up
•QUEST teams walk through all spaces at least annually

Operations Authorization

•Activity Hazard Documents
—Initial, annual, and modification reviews by deputy division director, ES&H coordinator, and principal investigator
—Includes review of training records
•Sealed Source Authorization
—Source custodian and authorized personnel complete training and accept conditions
•Self-Authorization
—IFA
—HEAR database
—Division/ES&H self-assessment review
—Job descriptions

Assessment, Feedback, Improvement: QUEST

•QUEST means:
—QUality assurance/improvement and
—Environment, safety and health through
—Self-assessment and
—Teamwork
•Basic premise --
—Teams of people who perform work are in the best position to evaluate the quality and safety of their workplace.
•QUEST teams meet monthly.
•Team leaders form the ALS ES&H committee.
•Provides top-to-bottom two-way communication.

MESH - Noteworthy Practices

•Work planning
—The Division ES&H/ QA Committee and QUEST Safety Circles provide an established method of communication that engages all staff.
—The culture of the ALS results in increasing the safety awareness of visitors, which often leads to visitors taking the initiative to improve their equipment.
—The beamline review process is an outstanding method of integrating safety into work planning.
•ALS has an outstanding review process for identifying new hazards
—Procedure ensures that changes in standard operating procedures will not violate the safety envelope
—Beamline scientists and principal investigators report modifications that have safety implications.

•ALS has a very effective hazard control process.
—Technical Safety Committee authorizes all modifications to personnel safety systems
—Beamline Review Committee reviews and authorizes all new and modified beamlines
—Single AHD for toxic gases applied to several locations
•Work performance
—ALS has over 1000 users annually (~1400 last year) and diligently ensures proper training to perform their work safely
•Feedback and improvement
—Senior management commitment to safety is very evident.
•Large safety budget
•Deputy division director meets will all safety circles annually
•Spot awards as a recognition of safe work practices
•Management follow-through on incidents and lessons learned is outstanding
•Division Director holds at least annual all hands meetings to reinforce his personal commitment to safety and to emphasize lessons learned

MESH Concern

•Several egress, trip, and seismic hazards in staff workspace due to floor congestion.
—ALS is addressing this issue
- •Creating safer access in congested areas
- •Elevating space considerations during beamline design review
- •Investigating moving computer servers to different locations
- •Ongoing project to reroute cords and cables to overhead cable trays
- •New staging areas outside bldg. 6 planned with new construction
- •New LN tank to allow expansion of plumbed LN, minimizing need for portable tanks

MESH Observation

•The ALS has nearly 500 procedures, creating logistical difficulties in ensuring that all procedures remain current.
—ALS response/action:
- —DOE Guidance calls for 3-year procedure relevancy review
- •43 procedures have been removed using this process
- —Procedures are changed in real time as equipment changes
- •Each new beamline requires at least 8 new procedures
- •User experiment safety procedure reviewed annually (DOE Guidance)
- —ALS is investigating necessity for additional administrative help to remain current
- —ALS concerned about staff turnover
- •ALS creating database to help supervisors keep track of all procedures used by group
- —Critical for bringing new supervisors up to date
- —Already exists for operations and maintenance groups

ALS Challenges

•Continuing to provide a safe work environment for a rapidly growing, highly diverse, and constantly changing user population.

MOU with Campus -- Update

John Seabury reported progress on the MOU with campus. The MOU is now called:

Partnership Agreement between LBNL and UCB Concerning EH&S Policy and Procedures

Progress Summary

–As of 12/2002, agreement had been reached on the "Foundation" (ie, guiding principles) for the agreement, and we were starting to work on specific language.

–"We" consisted of:

Robin Wendt, Division Deputy, LBNL EH&S
Mark Freiberg, Director, UCB EH&S
Joyce Freedman, Asst. VC, UCB Research Adminstration and Compliance
John Seabury, LBNL EH&S

–During CY 2003, met every 2-3 weeks

–Explored a number of areas

- Training
- Compensation
- Space Assignments
- Administrative reporting relationships
- Etc.

–Came up with Rev. 2.7 dated 07/29/2003

–Represents consensus of the "We"

–Comments by Nancy Ware, SRC, UCB Management have not yet been incorporated

What's the same as the last MOU

–Donner and Calvin are still considered LBNL space

–Other UCB space is still considered "Appendix I" space

–LBNL standards and requirements still apply in LBNL space, and UCB standards and requirements still apply in UCB (Appendix I) space BUT …

What's clarified in the present Agreement

–Responsibility for EHS in any space rests with the line manager (Principal Investigator) of that space.

–DOE's ISM does not apply at UCB, but the programs at LBNL and UCB are both consistent with ISM.

- Work in Appendix I space must comply with UCB requirements.
- Divisions must account for work in Appendix I spaces as part of their validation reports (At-a-Glance).
- Any LBNL funded work in Appendix I space must be validated to comply with these requirements.

How will this be accomplished?

–JHQ: anyone with an LBNL appointment will take the JHQ. The JHQ will have a provision asking where the individual works (LBNL, UCB, both).

–Training: LBNL training applies at LBNL, UCB training applies at UCB. LBNL's system will track both. LBNL and UCB will cooperate on classes with interest to both.

–Self-Assessments: UCB's existing annual self-assessment requirement fulfills this; LBNL Divisions should get a copy of the form.

–Validation: UCB has validation inspections of Appendix I spaces.

Other significant points

–Students are specifically called out as individuals for whom the line manager is responsible.
–Line managers, having primary responsibility for EHS, may exceed the minimum requirements of the Partnership Agreement at any time.
–Construction and Renovation responsibilities have been clarified.
–Inspections will be conducted by the EH&S office overseeing the space. Other EH&S office may accompany and comment.
–Accidents will be co-investigated when necessary.

Summary

–Existing practice of UCB setting standards for UCB spaces, and LBNL setting standards for LBNL spaces, is maintained.
–ISM responsibility for LBNL research in App. I space consists of conforming with UCB requirements.
–LBNL and UCB cooperating on procedures to make both sides benefit.

Questions/Discussion from SRC

- Is relying on Campus control adequate?
- Will DOE accept this?
- Is there any mechanism for ensuring involvement of Line Management?
- It seems that only EH&S agencies will be notified on accidents, what about line manager?

Status Report: External Regulation at LBNL

Paul Blodgett presented some informational background on possible external regulatory agencies being responsible for LBNL. The most likely scenario is that it will be OSHA and NRC.

Background

The Congressional Senate Appropriations Committee has mandated that OSHA and NRC compliance audits be undertaken to determine the cost of DOE coming into compliance with OSHA and NRC Standards at the 10 Office of Science Laboratories.

Scope

OSHA Inspection

- Pre-audit scoping visit expected Sept. 2003
- Audit expected in Jan./Feb. 2004
- Wall-to-wall – all buildings may be inspected
- Expect 20 OSHA auditors
- Duration will be 1-2 weeks
- ORNL audit – 1,570 instances

NRC Inspection

- Initial visit occurred August 12, 2003
- Audit expected Oct. 20-23, 2003
- Programmatic focus – Licensing
- Expect 2-3 NRC auditors
- Medical Devices (PET) – 10 CFR35
- Accelerators/X-rays – 10 CFR36
- D&D – Prepare funding plan

OSHA Findings at LBNL in 1999

One fourth of the findings in 1999 were "electrical" in nature. Of these electrical findings, 23% were grounding issues, 17% were temporary wiring issues, 12% LOTO, 12% GFCI related, 12% exposure to voltage, 12% electrical panel issues, 6% training, and 6% outlet box issues. Roughly another 24% overall at LBNL were "exposure to hazardous substances" issues. The findings at ORNL were 54% "electrical" in nature (842 out of 1570 findings), and 8% "hazardous substances" (126 / 1570).

Preparation for OSHA

- Identify administrative and institutional fixes
- Develop a check list for labs and shops
- Post awareness information on Today at Berkeley Lab web page
- Assemble inspection teams
- Conduct inspections
- Close out 1999 OSHA Pilot Findings
- Consolidate OSHA Pre-inspection information

OSHA Administrative Fixes

- Blocked emergency eyewash showers (EEWS)
- Chemical containers missing name/haz. ID
- Incompatible chemicals stored together
- Fume hood air flow obstructed
- PPE not stored properly
- Extension cords in lieu of permanent wiring
- Cracked or exposed wiring
- Blocked electrical panels
- LOTO issues

OSHA Institutional Fixes

- No EEWS in chemical use areas
- Lack of fume hood monitors
- Extension cords in lieu of permanent wiring
- Lack of GFIs near water source

$25M may be available in FY 04 for fixes
Additional $ may be budgeted for FY 05/06

The meeting was adjourned at 12:10 PM.

Respectfully submitted,

Edward J. Lampo
SRC Secretary